

NEW MICROBIOLOGY TEST METHODS FOR *E. COLI*

Under section 64655(b) of the proposed Interim Enhanced Surface Water Treatment Rule (IESWTR), public water systems using an approved surface water source (i.e., surface water or groundwater under the direct influence of surface water) will be required to monitor the raw water supply for total coliform and either fecal coliform or *E. coli* bacteria using density analysis no less than once each month.

For *E. coli*, the Sanitation and Radiation Laboratory and Microbial Diseases Laboratory have determined that *E. coli* methods for enumeration under 40 CFR 136.3(a) are suitable for *E. coli* enumeration under section 64655(b) of the proposed IESWTR.

The *E. coli* test methods as cited in 40 CFR 136.3(a), Table IH - List of Approved Microbiological Methods for Ambient Water are:

- SM92223B (18th, 19th or 20th ed)
- SM9221B.1/SM9221F (18th, 19th, or 20th ed)
- SM9222B/SM9222G (18th, 19th, or 20th ed)
- EPA 1103.1: *Escherichia coli* (*E. coli*) In Water By Membrane Filtration Using membrane-Thermotolerant *Escherichia coli* Agar (mTEC). U.S. Environmental Protection Agency, Office of Water, Washington D.C. EPA-821-R-06-010.
- EPA 1603: *Escherichia coli* (*E. coli*) In Water By Membrane Filtration Using Modified membrane-Thermotolerant *Escherichia coli* Agar (modified mTEC). U.S. Environmental Protection Agency, Office of Water, Washington D.C. EPA-821-R-06-011.
- EPA 1604: Preparation and use of MI agar with a standard membrane filter procedure is set forth in the article, Brenner *et al.* 1993. "New Medium for the Simultaneous Detection of Total Coliform and *Escherichia coli* in Water." Appl. Environ. Microbiol. 59:3534-3544 and in USEPA. 2002. Method 1604: Total Coliforms and *Escherichia coli* (*E. coli*) in Water by Membrane Filtration by Using a Simultaneous Detection Technique (MI Medium). U.S. Environmental Protection Agency, Office of Water, Washington DC. EPA 821-R-02-024.
- m-ColiBlue24

Please go to <http://www.epa.gov/waterscience/methods/method/index.html> to download new EPA test methods 1103.1, 1603 and 1604.

A formal announcement of the effective date of new regulations will be forthcoming.

How to Apply

- An amendment application and fees must be submitted to our Richmond office. Both signed hard-copy and electronic versions of ELAP FOT or FOA forms must also be submitted
- A PE sample must be successfully analyzed for ELAP laboratories. NELAP laboratories must successfully analyze two out of three PT samples.
- A copy of your SOP and a demonstration of capability must be submitted to your current ELAP Assessor for review. ELAP reserves the right to conduct a visit of your facilities at our discretion.

Should you need assistance or additional information, please contact your current ELAP assessor or Richmond Headquarters (510 620 3155).